



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY-DOCKET NO.	CONFIRMATION NO.
09/232,397	01/15/1999	ALI SALEH	M-7165-US	1881
33031	7590	05/27/2004	EXAMINER	
CAMPBELL STEPHENSON ASCOLESE, LLP			NGUYEN, HANH N	
4807 SPICEWOOD SPRINGS RD.			ART UNIT	
BLDG. 4, SUITE 201			PAPER NUMBER	
AUSTIN, TX 78759			2662	32

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/232,397

Applicant(s)

SALEH ET AL.

Examiner

Hanh Nguyen

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 04/09/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13,33,35 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9-13,33,35 and 38 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-13, 33, 35 and 38 are rejected under 35 USC 103(a) as being unpatentable over **Venkatesan** (US Pat. No. 5,999,286) in view of **Cowan et al.** (US pat. No. 6,457,050 B1).

In claims 1, 9, 10, 33, 35 and 38, **Venkatesan** discloses, in Fig.1, a SONET 10 comprising source node 22 (a first node), a destination node 24(a destination node) connecting via intermediate nodes T1, T2 (a plurality of nodes comprising source node, destination node, intermediate nodes coupled by optical links). See col.3, lines 40-67. Refer to Fig.7, when a traffic connection between the source node S (first node) and a destination node D (a second node) breaks, source node S (the first node) sends an explore message 70 (sending a message) to destination node D via intermediate tandem nodes T1, T2, T4, T4 (intermediate nodes) which are described in Fig.8, 9 (sending a message from the first/source node to the second/destination node). See col.6, lines 57-65 & col.7, lines 20-35. The explore message 70 is eventually received at destination node D as described in Fig.11. Figures 11, 13 and 14 show that destination node D sends a command message 100 back to source node S via tandem nodes T1-T4 (sending a reply message over intermediate nodes) to establishes alternate paths with capacity capable to connect the source node S and destination node D (identifying intermediate nodes comprising physical

path in response to the sending of message). See col.8, lines 1-10 & lines 35-45. & col.9, lines 20-35. Refer to Fig.16, a set of alternate routes S-T1-T4-D and S-T2-T3-D are established to restore the failed connection between source node S and destination node D (establishing virtual path by configuring a set of connections between first node, second node, intermediate nodes). See col.9, lines 33-40. **Venkatesan** does not disclose the virtual path is established automatically, dynamically. **Cowan et al.** discloses, in Fig.2, a real time restoration 10 detects a link failure in network 14, automatically and dynamaically switches to a backup link (the virtual path is established dynamically). See col.4, lines 20-50. Therefore, it would have been obvious to one ordinary skill in the art to use the features of **Cowan et al.** into **Venkatesan** to dynamically and automatically establish virtual path between source node and destination when a failure is detected.

In claim 3, the limitation of this claim has been addressed in claim 1.

In claims 2, 11, 12 and 13, **Venkatesan** does not disclose testing to determine if a node/link have failed; each node maintaining status information such as database on neigboring nodes. **Cowan et al.** discloses, in Fig.4, RTNDD 40 that includes status of DXC/ switching nodes 12. Status information in each switching node 12 identifies current cross-connected ports the switching nodes 12 are connected as well as spare ports that are available (each node maintains a database which allows the discovering of physical path to proceed more quickly). See col.8, lines 5-15. In Fig.6 discloses a break isolator 66 that applies certain criteria to determine if a trunk break/outage has occurred by receiving a number of alarms in a time interval (Testing to determine if a node/link have failed). See col.11, lines 42-45. In addition, network control 36 (Fig.3) perform evaluation tests and analysis on links 30 and switching nodes

Art Unit: 2662

12. See col.7, lines 50-55. Therefore, it would have been obvious to one ordinary skill in the art to implement database of **Cowan et al.** into each of nodes in **Venkatesan** to determine the status information of each neighbor node as well as determining whether the node is failed or not.

In claims 4 and 5, **Venkatesan** and **Cowan et al.** do not disclose the terminating VP by deallocating intermediate links which are for re-use. It is well-known skill in the art that once a VP is not used, a termination message is automatically sent on the intermediate links connecting intermediate nodes to terminate the VP. The terminated VP is saved in nodes for reuse when another VP is requested. Therefore, it would have been obvious to one ordinary skill in the art to automatically terminate unused VP in **Venkatesan** and save for reuse.

Allowable Subject Matter

Claims 6-8 are objected.

Response to Arguments

Applicant's arguments with respect to claims 1-13, 33, 35 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Commeford et al.(US Pat. No. 6,134,671) discloses System and Method for Dynamically Generating Restoration Routes Within a Communications Network.

Commerford (US Pat. No. 5,920,257) discloses System and Method for Isolating an Outage Within a Commuications Network.

Croslin (US Pat. No. 5,737,319) discloses Dynamic Network Topology Determination.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

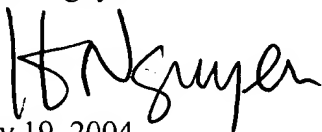
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 703 306-5445. The examiner can normally be reached on Monday-FRiday from 8AM to 5PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 703 306-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

A handwritten signature in black ink, appearing to read 'H. Nguyen'.

May 19, 2004